

# Micro-Processor and Embedded Systems

## Lab-Session 5 Report for MCU

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**AIM:** week 5 and week 6 we must create an MCU. So, we have implemented a MUX A in this week.

### **Summary:**

1. Using Nomachine access the VIVADO By sourcing `/proj/cad/startup/profile.xilinx_vivado_18.3`.
2. Command to open the tool is `vivado&`
3. Create a new project on the software for ALU and registers.
4. ALU and register file Verilog codes along with the test benches have been complied successfully.
5. Ran the behavioral simulation for the test bench codes.

### **MCU:**

A microcontroller (MCU for microcontroller unit) is a small computer on a single VLSI integrated circuit (IC) chip

### **MUX A:**

A multiplexer is a device that selects one output from multiple inputs. It is also known as a data selector. We refer to a multiplexer with the terms MUX

### **Conclusion:**

We were able to successfully create the MUX A. I would like to implement all the modules and create an MCU

### **Attachments:**

We have uploaded the codes and testbenches for the MUX A in the attachments along with screenshot of the simulation.